Central Corridor Development Strategy

Financial Feasibility of Development Analysis

Prepared for:

The City of St. Paul

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Introduction and Findings

The Center for Transit-Oriented Development (CTOD) tested the feasibility of development on key sites along the Central Corridor in an effort to provide insight about the nature and timing of future development. The analysis complements current station area planning efforts by testing the ability of the private market to deliver the kinds of development envisioned in the Central Corridor Development Strategy. It is intended to inform decision-making about development policy, including the approach to zoning overlays and project approvals, as well as where public resources can best be directed to help realize the development vision for the corridor. This report should not be viewed as an evaluation of any specific development proposal or a hard and fast proposal for policy changes.

The following key findings of the study will be explained in more detail in subsequent sections:

- The development program envisioned in the Central Corridor Development Strategy faces near-term hurdles, but some types of development are likely be feasible in the next 5-10 years.
- While long term projections indicate potential demand for a significant amount of office development, residential development is likely to drive much of the development in the corridor in the short- to mid-term. Office development is more likely to occur on the west end of the corridor near the University, or driven by the needs of specific office users.
- Townhouses are likely to be the first building type to become feasible within the corridor because they have relatively low per-square foot costs relative to expected revenues.
- The high cost of providing structured parking for large office and retail developments is a major factor that hinders development feasibility.
- Rising land costs are impacting the financial feasibility of projects in the short- and mid-term.
- The amenities and public improvements that will distinguish the Central Corridor as an attractive place to live, shop and work are going to be critical for long-term success.

Study Overview

Working with the City, CTOD identified several sites that are likely to redevelop over time, and developed two rounds of development scenarios for each site, which were used to test the feasibility of development. The development programs were determined with City staff, and are intended to be illustrative of the scale and type of development envisioned in the Central Corridor Development Strategy. These programs will need further study and refinement as part of any proposed project, and should not be construed as an endorsement of the program. Because market conditions in the corridor are currently not ideal for many kinds of new development, the analysis focused on the potential future timing of new development in the corridor, as well as how development might play out spatially given different conditions within the corridor. A first round of analysis tested the feasibility of development that reflects the long-term vision for the corridor expressed through the Central Corridor Development Strategy. The second round of analysis was designed to identify development types that are closer to being feasible within the current market. The intention of this analysis was to test the current development market absent any public subsidies that may be targeted to transit-oriented development. Such subsidies may pay for affordable housing, infrastructure costs, or structured parking. While these subsidies may be

necessary to achieve strategic goals in the corridor or catalyze development, this study does not assume subsidies are available to boost the financial feasibility of development programs.

The four sites tested in the analysis are:

- **Case Warehouse site.** Located at Highway 280 and Franklin, this is a 9.2 acre property containing a vacant warehouse. The site was recently purchased by the adjacent Court International building, and is currently used as additional parking for the Court International building.
- **Midway Chevrolet site.** This 1.9-acre site consists of a full half-depth commercial block on the north side of University Avenue between Hamline and Syndicate.
- **League of Minnesota Cities block.** This 3.5-acre site consists of almost an entire block on the northwest corner of University and Rice. The League of Minnesota Cities recently completed a new office building adjacent to the site, with associated surface parking, and is considering ideas for possible expansion of their offices, plus some additional development.
- **"Bus barn" site.** Located at the northeast corner of Snelling and Interstate 94, this is a vacant, 10-acre property owned by the Metropolitan Council. The site is located directly south of the Midway Shopping Center on University Avenue, and was formerly used as a bus garage for Metro Transit.

The remainder of this report is organized as follows:

- An overview of market conditions including a discussion of office, residential and retail markets;
- A discussion of land values within the corridor and the likely impact of transit on land values;
- Detailed findings from the financial analyses, by site;
- A discussion of when key development types tested for the corridor are likely to become feasible in the future; and
- A summary of key findings from the analysis.

Market Overview

In preparation for the financial analysis, CTOD interviewed representatives from Colliers involved with the Central Corridor planning efforts about current market dynamics in the corridor. Colliers staff also provided specific market inputs for the analysis such as rents, sale prices and construction costs. Key market factors influencing development feasibility in the corridor are described below.

Office Uses

Although the Colliers' analysis projects a long-term demand for new office uses in the corridor, current demand is low due to relatively high office vacancy rates in the region. Office vacancies are around 15 percent in the Twin Cities, and more than 20 percent in downtown St. Paul. This brings down rents in the corridor because there is ample supply of vacant office in the two downtowns, areas that are typically more attractive to most Class A or credit-worthy office tenants. Colliers reports that office rents in the western end of the corridor (nearer the University) are higher than in the eastern end. The potential for office development at this end of the corridor is bolstered by the existing Court International Building, which is considered desirable office space. Fairview is considered to be the point at which rents start to decline moving east. Rent generating potential on the east end of the corridor is particularly low because this area will be in direct competition with office space in downtown St. Paul. This end of the corridor is

essentially an extension of downtown St. Paul and the government center area, while the western end is more likely to attract office users that prefer to be nearer to the University. In the short- to mid-term, any new office development will likely be limited to relatively small owner-occupied buildings that operate under different financial considerations than larger, multi-tenant developments.

Currently, the corridor does not attract multi-tenant users who rent a large increment of office space such as an entire floor of a building. Tenants with the ability and interest in renting large amounts of space will be important for filling the amount of office space envisioned for the corridor. The current supply of Class C, single-tenant office space attracts small companies who seek small offices and low rents, such as professional services, non-profit organizations, and others. Although these tenants are well-served by the existing supply of office space in the corridor, they are not likely to be the type of tenant who will be able to support the higher rents that will come with newly constructed Class A office space.

As the market improves, the most promising area for new development will be on the west end of the corridor near the University of Minnesota. Despite the generally poor climate for office development, a new mixed-use project containing office is currently slated for this end of the corridor. While the project has not yet been built, its financial feasibility is most likely due to its good location near the University, other new development, and because it has received public subsidy.

Residential Uses

The market for new for-sale housing is strongest in the western end of the corridor where recent new multifamily residential development has occurred, and new residents have demonstrated demand for the convenience and proximity that comes with living in the Central Corridor. Elsewhere along University Avenue, the market for new market-rate housing has not been tested. However, it is likely that the introduction of light rail will make the corridor more appealing for residential development at a range of densities. Live/work units are also untested within the Twin Cities market, however, station area planning efforts identified interest in this product type, and as a result they are included in the analysis. In Toronto, for example, they have attracted professionals such as accountants, architects, dentists, estheticians and other professional service providers. When artists can afford the cost of new construction, their space needs may also be met by a live/work unit. Live/work units tend to be more successful as part of pedestrian-oriented “main street” shopping districts and the market for this kind of development in the Central Corridor remains untested. This means that the success of live/work development in the corridor may depend on the ability to transform the corridor into a more pedestrian-friendly environment.

Given the poor performance of the housing market around the country, the rental apartment market is faring well in relation to the for-sale residential market. Apartment vacancy rates currently hover around five percent in St. Paul. New apartment construction typically occurs in markets where vacancy rates fall below five percent, suggesting that there will likely be demand for new apartments in the near future. However, the low market rents for apartment projects within the corridor make them difficult to build without subsidy.

Retail Uses

University Avenue is a desirable area for auto-oriented retail due to relatively high traffic counts and proximity to and visibility from I-94. Recent land transactions in the corridor are almost exclusively for the purpose of developing relatively low-density retail uses. Big box retailers are particularly attracted to University Avenue, and the Bus Barn site is particularly attractive to retailers because of its size, good visibility from the highway, and relatively good access.

Retail as part of a mixed-use setting has higher development costs than typical, stand-alone retail with surface parking. Mixed-use retail will be more successful in areas with a lively pedestrian realm and a

concentration of office or residential uses. Because retail can be combined with residential or other uses, it can easily be incorporated into a variety of mixed-use development programs.

Land Values

Colliers staff and developers interviewed for this analysis report an increasingly speculative land market within the corridor. Owners are reportedly optimistic about transit's potential to increase property values and, as a result, are holding their land based on the expectation of higher sales prices in the future. While this is positive in the sense that it indicates a strong potential for future investment in the corridor, landowners may perceive the value of their land to be higher than what is currently justified given the real estate market, creating an inhospitable climate for new development. Several potential new development projects in the corridor have fallen through because of an inability to negotiate a mutually agreeable sales price for the land. This situation is not uncommon in areas with planned transit, and will likely improve once the transit is built. The land values may also represent the uncertainty of zoning in the corridor. Revised zoning to support transit-oriented development and the vision of the Development Strategy may help provide more certainty in the development market and make land values more reflective of development potential.

Added Value of Transit

There is a significant amount of evidence that locations near transit are able to achieve higher rents and sales prices based on their proximity to transit, especially where the transit provides good access to job centers and other desirable destinations. However, this "transit premium" varies considerably depending on a variety of factors, including local market conditions, frequency of transit service, transit type, and land use.

CTOD recently conducted a survey of previous studies on this topic, summarized in Table 1. The findings of these studies indicates that for single family residential, the property value premium has ranged from two percent in San Diego (1992) to 32 percent in St. Louis (2004). For condominiums, the premium ranged from two percent to 18 percent in San Diego (2001), while for rental apartments the range was zero to four percent in San Diego (2001) to 45 percent in Santa Clara County (2002). In terms of commercial property, the value premium for office uses ranged from nine percent in downtown Washington, D.C. (1981) to 120 percent in downtown San Jose (2002). Value premiums for retail property ranged from one percent near Walnut Creek's BART station (1978) to 167 percent in San Diego (1992).

It should be noted that many of these studies are dated, and there is reason to believe that the desirability of properties near transit is likely increasing, given changing demographics, rising gas prices, and renewed interest in urban lifestyles. In our analysis, we considered the potential impact of an 8 to 15 percent value increase in each of the scenarios, based on the central location of the corridor in the region and the fact that the light rail will connect two major employment centers and the University of Minnesota.

Table 1: Summary of Findings from Value Premium Studies

Land Use	Range of Property Value Premium		
Single Family Residential	+2% w/in 200 ft of station (San Diego Trolley, 1992)	to	+32% w/in 100 ft of station (St. Louis MetroLink Light Rail, 2004)
Condominium	+2% to 18% w/in 2,640 ft of station (San Diego Trolley, 2001)		
Apartment	+0% to 4% w/in 2,640 ft of station (San Diego Trolley, 2001)	to	+45% w/in 1,320 ft of station (VTA Light Rail, 2004)
Office	+9% w/in 300 ft of station (Washington Metrorail, 1981)	to	+120% w/in 1,320 ft of station (VTA Light Rail, 2004)
Retail	+1% w/in 500 ft of station (BART, 1978)	to	+167% w/in 200 ft of station (San Diego Trolley, 2004)

Source: *Capturing the Value of Transit,* Center for Transit Oriented Development, forthcoming publication.

Feasibility Analyses

Two rounds of feasibility analysis were conducted for each of the four sites. The first round consisted of development scenarios that reflect the community's long-term vision for the corridor, based on current station area planning efforts. In the second stage of the analysis, CTOD refined these scenarios by maintaining the design principles put forth in the original scenarios but attempting to be more representative of the type of development that could be feasible to develop in the near term.

The general findings from each round of analysis are summarized below.

Round One Analysis

In the first round of analysis, office was proposed as the primary use for all but the Midway Chevrolet site, which was programmed as a residential development. All other sites were designed as mixed-use developments and included other commercial uses such as retail, movie theater, or hotel space, in addition to the office space. A description of the first round of development programs is provided in the table below, and more detailed descriptions of the development programs for each site are provided in the following section.

Table 2: Round One Development Programs

Site	Primary Use		Secondary Uses		Parking
	Use	Description	Uses	Description	
Bus Barn	Office	280,000 SF	Retail; Movie Theater; and Open Space	150,000 SF Retail; 1,800 seat Movie Theater; 16,000 SF Open Space	Structured (1,800 spaces)
Midway Chevrolet	Residential	23 Live/Work Units; 9 Accessory Units; 14 Unit Apartment	NA	NA	Garages (32 spaces) & Surface (16 spaces)
League of Minnesota Cities	Office	225,000 SF	Residential	20 Rowhouses	Structures (700 spaces); Tuck-under (20 spaces)
Case Warehouse	Office	240,000 SF	Hotel	250 Rooms	Structured (950 spaces)

Summary Conclusions from Round One

None of the initial development scenarios tested were found to be financially feasible to develop in the current market. Two primary factors contributed to this outcome and informed our recommendations for the second round of analyses: (1) the corridor has a very limited market for several uses (e.g., office), or has only a nascent market (e.g., ground floor retail); and (2) the development programs include significant density that require costly underground or structured parking, partially due to the current parking requirements, which are not tailored to respond to the presence of high-capacity transit. In the second phase we placed more emphasis on how future development is likely to be phased, and how early development projects might be designed to catalyze desirable development types in subsequent phases. We also attempted to reduce the amount of parking in each development. Below is a table describing the parking ratios used for each development type in both rounds 1 and 2.

Table 3: Parking Assumptions for Rounds 1&2

Building Type	City Requirements	Scenario 1 (75% of requirements)	Scenario 2 (more aggressive)
Townhouse/ Rowhouse	1.5 spaces/unit	1.1 spaces/unit	1 space/unit
Live/Work	1.5 spaces/unit	1.1 spaces/unit	1 space/unit
Apartment	1.5 spaces/unit	1.1 spaces/unit	0.8 spaces/unit
Condo	1.5 spaces/unit	1.1 spaces/unit	1.0 spaces/unit
Retail	1 space/225 g.s.f.	1 space/300 g.s.f.	1 space/333 g.s.f.
Office	1 space/350 g.s.f.	1 space/467 g.s.f.	1 space/500-600 g.s.f.
Hotel	1 space/room	0.75 spaces/room	0.75 spaces/room
Restaurant	1 space/167 g.s.f.	1 space/225 g.s.f.	1 space/250 g.s.f.

Round Two Analysis

Based on the findings from the first round of analysis, CTOD recommended new development programs for each site that would be closer to being feasible under current market conditions. Because the office uses in the first round were a significant drag on financial feasibility, we dramatically reduced the office uses in the development program, except where it was of particular strategic importance to the site, as

with the Case Warehouse site (for the League of Minnesota Cities sites, we assumed the office development would happen regardless of development conditions and excluded that portion of the site from analysis). In place of office, the development programs were adjusted to include additional residential units. Expensive structured parking was also reduced and replaced by surface parking in places where it could be accommodated without conflicting with the urban design guidelines envisioned for the corridor. In some cases, the new development programs were designed as the first phase in what could down the road become a larger development project. The site plans were careful to preserve the potential for future development by maintaining large developable sites within the larger site that could be developed in the future. A description of the second round of development programs is provided in Table 4.

Table 4: Round Two Development Programs

Site	Primary Use		Secondary Uses		Parking
	Use	Description	Uses	Description	
Bus Barn	Retail	118,000 SF	Office	96,000 SF	Surface (546 spaces)
Midway Chevrolet	Residential	10 Live/Work Units; 15 Townhouses; 55 Apartments	Ground Floor Retail	13,000 SF	Podium (44 spaces), Surface (11 spaces) Tuckunder (3 spaces)
League of Minnesota Cities	Residential	19 Rowhouses; 81 Apartments	Ground Floor Retail	8,950 SF	Podium (81 spaces); Tuck-under (19 spaces)
Case Warehouse	Residential	300 Condos	Office; Hotel; Retail	149,400 SF Office; 126,000 SF Hotel; 30,000 Retail	Surface (559 spaces); Structured (133 spaces)

Summary Conclusions from Round Two

Although financial feasibility improved dramatically in the second round of analysis, all of the development programs remained infeasible at the present time. Based on the analysis, it is likely that there is no individual development type (e.g., townhouses, office space, or condominiums) that is currently feasible to build along University Avenue, given the combination of current poor market conditions and relatively high construction costs. However, the analysis found that there is significant potential for development within the short- to mid-term in the Central Corridor, as described in more detail in the following section. There may also be developments feasible currently in the market that are operating under different considerations for revenues or different cost structures (e.g. where the land is already owned or where rates of return are less than the typical market would require).

Detailed Results of Financial Feasibility Analyses by Site

Following is a summary of general findings and results from both rounds of analysis and for each site. For each site, the development program is intended to be illustrative of the possibilities and not necessarily a fully refined development scenario.

Bus Barn Site

In the first round of analysis, the Bus Barn site was envisioned as having significant office and retail square footage, a movie theatre, and a significant amount of open space. This project included a large structured parking garage that contained 1,800 spaces. The combination of a significant amount of office space and large quantity of structured parking had a negative impact on the feasibility of the project.

For the second round of analysis, the Bus Barn site was programmed as two story commercial structures with surface parking. The development program included ground floor retail and with office above and included surface parking lots but was strategically designed so that additional development could occur in the future. The provision of ground floor retail allows the development to take advantage of good highway access and a long history of being an important retail center for the neighborhood. It may be possible to retain the movie theater and retail uses on the site if they are reconfigured to maximize revenues and are matched with the right configuration of other uses, but they are not feasible on their own.

The feasibility of development improved with the changes made to the development program, however the outcome was still not financially feasible in the current market. Although this is one of the larger sites available in the corridor, the size of demand for retail and commercial space may not match what would be required to build a project that contains the urban design features outlined in the community visioning process. For this reason, this site may redevelop later than other available parcels in the corridor.

It also should be noted that this site is challenging to use as a first stage in the transition from more auto-oriented uses to more transit-supportive uses due to the high visibility from heavy traffic corridors and low visibility from more transit-accessible ones. If combined with adjacent properties, there may be additional prospects for near term development.

Table 5: Bus Barn Site Development Programs

Round of Analysis	Primary Use		Secondary Uses		Parking	General Findings	Feasibility Gap (gap as a share of total costs)
	Use	Description	Uses	Description			
One	Office	280,000 SF	Retail; Movie Theater; and Open Space	150,000 SF Retail; 1,800 seat Movie Theater; 16,000 SF Open Space	Structured (1,800 spaces)	**Infeasible** - feasibility is impeded by the large amount of office space and large amount of structured parking	61%
Two	Retail	118000 SF	Office	96,000 SF	Surface (546 spaces)	**Infeasible** - retail uses and the reduction of office and parking improve feasibility	49%

Midway Chevrolet Site

In the first round of analysis, the Midway Chevrolet Site was evaluated as a residential and live/work development with live/work units on the ground floor, fourteen apartments and nine accessory units over the rear garages of the live/work units. The live/work units would provide ground floor commercial space to improve the pedestrian realm near the Snelling & University LRT stop. Because this site was programmed entirely with residential uses, it was the closest of all the Round One development scenarios to being financially feasible to develop. It should be noted that the market for live/work space is untested

in the Twin Cities, and as a result assumptions about sale prices are somewhat speculative. Furthermore, because the market is untested for this kind of project, it might involve more risk for a developer, and could be difficult to finance. However, a developer who has experience with this type of development in other regions might be willing to bear some of these increased risks.

In the second round of analysis, the Midway Chevrolet site was programmed with additional residential units, including 55 apartments—including some in a mixed-use structure—and 15 townhomes, while some ground floor retail was added to the program as an anchor for activity. The live/work units were also retained in the second phase because of their important role in creating a high-quality pedestrian realm. The feasibility of the development program improved with the addition of more units and the introduction of townhomes. While not yet feasible on its own, this development type is likely to become feasible in the short- to mid-term because it benefits from relatively high revenue and low costs of construction. In this scenario, the townhomes require a 12 percent revenue increase to become feasible, in line with the value premiums of some other LRT corridors around the country.

The program suffers from relatively low residential rents due to the location on University Avenue. For the entire development program to become feasible, residential rents would need to increase 30 percent. While the presence of LRT alone is not likely to make up this gap, the introduction of LRT and efforts to improve the pedestrian realm may be enough to make this development program feasible.

Table 6: Midway Chevrolet Site Development Programs

Round of Analysis	Primary Use		Secondary Uses		Parking	General Findings	Feasibility Gap (gap as a share of total costs)
	Use	Description	Uses	Description			
One	Residential	23 Live/Work Units; 9 Accessory Units; 14 Unit Apartment	NA	NA	Garages (32 spaces) & Surface (16 spaces)	**Infeasible** - but the closest of all developments to being financially feasible to build	31%
Two	Residential	10 Live/Work Units; 15 Townhouses; 55 Apartments	Ground Floor Retail	13,000 SF	Podium (44 spaces), Surface (11 spaces) Tuckunder (3 spaces)	**Infeasible** - additional units improved feasibility	23%

League of Minnesota Cities Site

In the first round of analysis, the League of Minnesota Cities site was programmed to include 20 rowhouses in addition to a large office development for the League of Minnesota Cities and other tenants. Parking on the site was comprised of a structure with 700 spaces for the office and tuck-under parking for the residential space. The program was found to be infeasible due primarily to the large amount of office space. Market office rents in the Central Corridor are not currently high enough to support the cost of new office construction, particularly office space with expensive-to-build structured parking. This means that the League of Minnesota Cities could rent space elsewhere for less than the cost to build their own building. While the League may still choose to construct their own building on the site, this would not reflect market conditions that are generally supportive of office development.

The rowhouse units were found to be close to feasible to build, and additional residential units were included in the second round of analysis. The configuration of the site was altered to exclude the League of Minnesota Cities office development, reserving the space until such a development would become feasible to build, and scaling down the parking demands on the site. On the remaining lot, the rowhouses with tuck-under parking were retained, and 81 apartments with podium parking and ground floor retail were added to the development program.

The second round of analysis found that the addition of a larger apartment building actually reduced the feasibility of development, because rents in that part of the corridor are too low to support new construction of that type. Lower-density apartments perform better in the financial analysis because they are less expensive to construct. The rowhouse units, however, benefit from relatively high sales prices and relatively low construction costs, suggesting that this development type is more likely to become feasible in the short- to mid-term if sales prices in the corridor rise.

Table 7: League of Minnesota Cities Site Development Programs

Round of Analysis	Primary Use		Secondary Uses		Parking	General Findings	Feasibility Gap (gap as a share of total costs)
	Use	Description	Uses	Description			
One	Office	225,000 SF	Residential	20 Rowhouses	Structured (700 spaces); Tuck-under (20 spaces)	**Infeasible** - office uses impede feasibility of residential	69%
Two	Residential	19 Rowhouses; 81 Apartments	Ground Floor Retail	8,950 SF	Podium (81 spaces); Tuck-under (19 spaces)	**Infeasible** - feasibility improved with change to a more residential development program	39%

Case Warehouse Site

In the first round of analysis, the Case Warehouse site was designed to include 240,000 square feet of office, a hotel with an on-site restaurant, and a significant amount of structured parking to accommodate the hotel and the office. Overall, the project was not found to be feasible to develop at this time. Of all the uses included on the site, the hotel is closest to being financially feasible. Like on the other sites, the quantity of structured parking required for development was found to be a major drag on the financial feasibility.

In the second round of analysis, the Case Warehouse development program was modified to include a 300-unit condominium development, in place of 100,000 square feet of the office space. Despite conclusions from the first round of analysis that office is not a financially feasible use, 149,000 square feet of office use was retained because it is considered to be a key long-term use for the site. The hotel was retained and a small amount of retail was added to support the residential uses. Parking costs were reduced by including additional surface spaces, and a smaller parking structure due to reduced parking ratios.

The addition of residential condominiums moved the development program much closer to achieving feasibility, although it remains infeasible in the current market. While the reduction in structured parking had a significant positive impact on project revenues, the office uses continued to place a burden on the financial feasibility of the development program.

The amount of recent development at this end of the corridor suggests that a predominantly residential development program will soon be feasible as rents at this end of the corridor continue to rise. As this happens, the residential portion of a development program may be able to help subsidize other strategic uses such as office and make the overall program feasible. These “excess” revenues could also be used to subsidize other uses, such as affordable housing as part of a market-rate development or improvements to the public realm.

Table 8: Case Warehouse Site Development Programs

Round of Analysis	Primary Use		Secondary Uses		Parking	General Findings	Feasibility Gap (gap as a share of total costs)
	Use	Description	Uses	Description			
One	Office	240,000 SF	Hotel	250 Rooms	Structured (950 spaces)	**Infeasible** - office and structured parking impede feasibility	56%
Two	Residential	300 Condos	Office; Hotel; Retail	149,400 SF Office; 126,000 SF Hotel; 30,000 Retail	Surface (559 spaces); Structured (133 spaces)	**Infeasible** - residential uses help to dramatically improve feasibility	28%

Projecting Future Feasibility

The fact that none of the development programs tested for this analysis were found to be feasible in the current market is not very surprising given the current real estate downturn and uncertain credit markets, and the fact that the light rail has not yet been built. In order to shed light on the likely timing and type of development that might occur in the future, CTOD projected a range of future trajectories of construction costs, sales prices and rents to determine the timeframe during which the sales or rental revenue from a development project might exceed the costs associated with development. This analysis is intended to inform decisions about when subsidies may be appropriate and when or how lower-intensity or "non transit-oriented development" programs and uses could be built in the corridor.

The analysis does not attempt to predict the timing of office development because the analysis found that the type of development envisioned in the station area planning process is far from feasible in most parts of the corridor at this time, and the timing will be greatly influenced by regional market factors and employment growth patterns. As a result, it is more challenging to predict the impact of transit on the relative desirability of the Central Corridor for office development, and to estimate the likely timing of development based on expected costs and revenues.

Methodology

Costs

The construction costs and sales prices included in the financial analysis were used as a starting point for this exercise. We identified high and low annual growth rates for construction costs based on historic trends and applied them to the 2008 costs to project a range of future construction costs for different building types. Other development costs were estimated using rule-of-thumb planning-level assumptions about how much these costs should be in relation to a project's hard costs[1]. Using this method we were able to project a high and low range of future development costs of construction for projects in the corridor.

As described previously, current asking prices for vacant or underutilized properties in the corridor are somewhat speculative, and do not necessarily reflect market conditions and the fundamental value of land as a reflection of development opportunities. Because of current conditions in the land market, we chose to project the financial feasibility of development under two conditions: 1) assuming land costs remain flat over time; and 2) assuming land costs increase over time.

[1] An additional $25 per square foot was added as the fixed land cost based on the average square footage of the building footprint for each building type. For the increasing land scenario, land costs were calculated as 20% of the total development costs.

Revenues

A similar approach was used to project future sales prices and rents in the corridor. In this case, we created a high, medium and low scenario for revenue growth. The "low" scenario represents an annual rate of growth slightly less than the average annual growth rate for the region. An additional boost of 8 percent was added in 2013 and beyond, the date when the transit is expected to open. This boost reflects the role of transit in increasing land values. The "medium" scenario reflects a slightly higher annual growth rate than what we see in the region over time but a rate that has occurred within the region during some periods. The medium scenario receives a 10 percent boost in values from the introduction of the transit. The "high" scenario reflects the growth rate in the medium scenario until the point when the LRT is introduced to the corridor and then the growth rate is given a 15 percent boost to reflect the increased value of property after the introduction of the transit.

Findings Regarding Future Feasibility of Development

Figure 1 shows the expected time horizons when development might take place in the corridor. The lines in the chart represents the window or range of years when a project might become feasible, depending on different market conditions. The line darkens as the project becomes feasible under the high, medium, and low growth scenarios. As this happens, the likelihood that a project of this type will be built also increases since the project is less vulnerable to changes in the market.

The graph illustrates when development is likely to occur given these different scenarios in land prices. Scenarios where land costs are steady become feasible sooner and are feasible under medium and low growth scenarios sooner. In addition to noticing when projects become feasible, it is also important to notice the comparative length of the line or window of feasibility in each scenario. Projects with fixed land costs also have shorter windows during which projects will be most vulnerable to market changes.

As described above, two land cost scenarios were used: one where land costs are fixed at current prices and the other where land costs increase exponentially on a percentage basis. The purpose was to shed some light on the impact that speculation is currently having in the corridor. In today's market, land prices are higher than what could be attained from development. In order for development to happen, land prices will need to decrease or the revenue potential of developments will need to increase, or both. Revenue potential increases when a project can attract higher rents due to its location or other amenities offered. There is significant potential for the transit to be the impetus needed to increase the revenue generating potential of development projects in the corridor.

Another important factor influencing future development in the corridor is the potential for the renovation of existing buildings. While this analysis tested development on mostly vacant or underutilized sites, there is a significant amount of potential for the redevelopment of existing buildings. As the market improves, current landowners might realize that a renovated building could generate high enough rents to justify renovation costs. These kinds of improvements could help to improve the potential for development over time.

Townhouses & Rowhouses

Townhouses are expected to be one of the first development types to become feasible in the near term. The low-density nature and physical similarities to a detached single-family home mean that townhouses are relatively inexpensive to construct but have high revenues per square foot. For this reason, as revenues grow in excess of costs, it is not surprising to see townhouses quickly become feasible within the corridor. Based on the analysis, townhouses could become feasible to build within the next five years. The rowhouses on the League of Minnesota Cities site were programmed as slightly larger units to provide for larger households, but, due to the location in the corridor, would not bring in high enough sales revenues

to be feasible. This building type would begin to be feasible in about five years, on a similar timeframe as live/work.

Condominiums

Condominium development is expected to be very transit supportive and is a key component of most of the station are planning efforts. Like townhouses, condominiums can generate relatively high sales prices. However, compared to townhouses, condominium buildings are expensive to build given the more intense building type and one level of parking podium. The analysis found that land values have a significant impact on when condominiums become feasible. If land prices remain stable, condominiums could become feasible to build within the next five years.

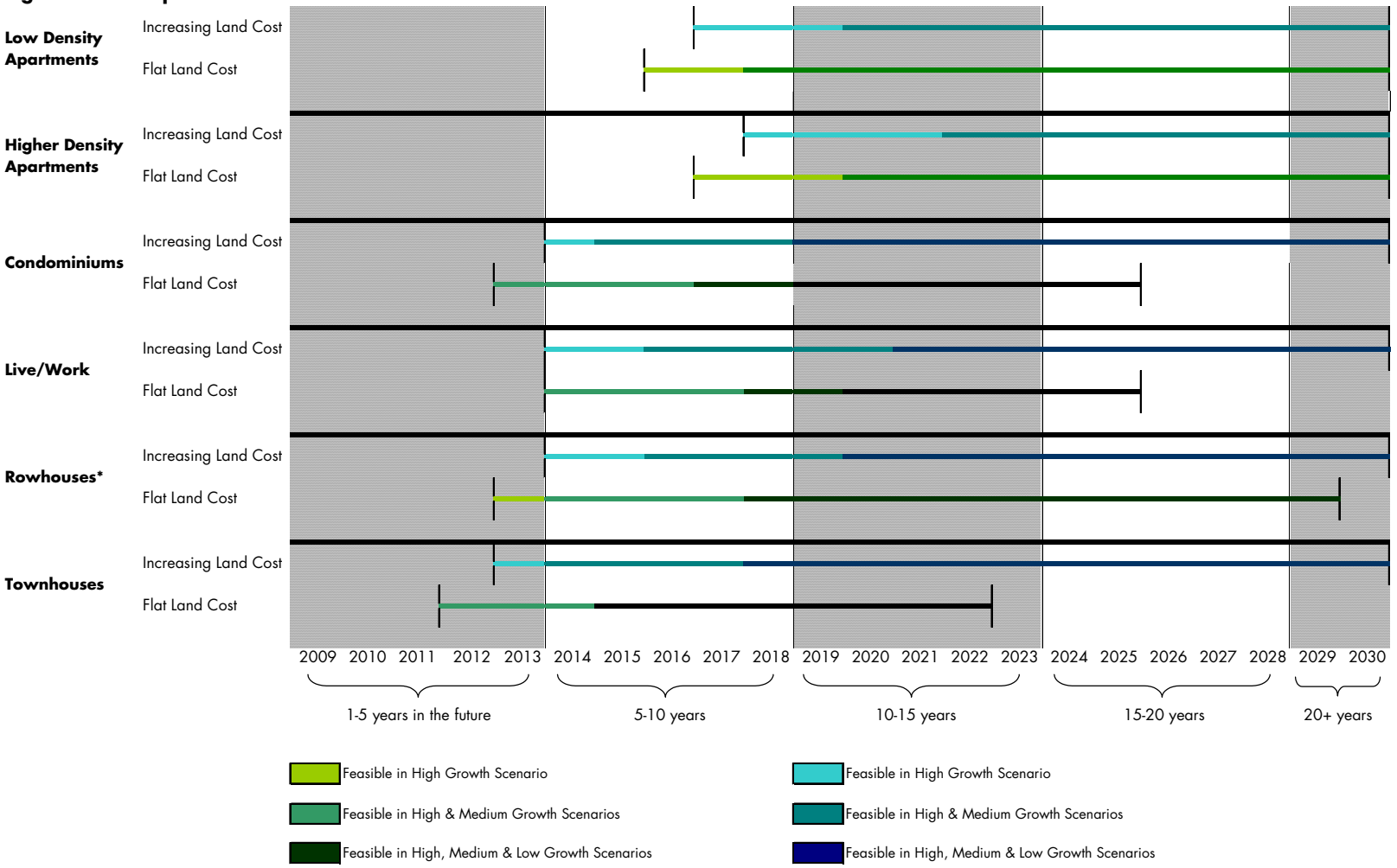
Live/Work

Like townhouses, live/work units are relatively low density and inexpensive to build, but are not expected to bring high sales revenues in the current market. This could be due to the relative novelty of the building type in the region, and the current state of both the small-scale retail and residential markets in the corridor. Based on the analysis, these unit types could begin to be feasible to develop beginning around five years out, essentially the same timeframe as condominiums. However, it should be noted that because this is an untested product type n the region, a developer would need to be willing to take on the additional risk associated with this uncertainty, and could face some challenges in obtaining financing.

Apartments

The apartments shown in this analysis are small projects of less than 20 units (the low-density scenario) and higher density projects of 50 or more units (the high-density scenario). The lower density scenario benefits from a lower cost of construction but its low rents take a long time to grow large enough to exceed the cost of development. The high-density apartments have a higher cost of construction, similar though not as expensive as condominiums, as well as relatively low rents. Because of the low rents, this development type only becomes feasible in the most aggressive scenarios of revenue growth, until 2030 when it becomes feasible under the medium revenue growth scenario.

Figure 1: Development Horizons



*The rowhouses on the League of Minnesota Cities site in this analysis are subject to lower rents because of their location in the corridor. In a more advantageous location, their trajectory would be similar to the townhouses on other sites.

Summary of Key Findings

- **The development program envisioned in the Central Corridor Development Strategy faces near-term hurdles, but some types of development will likely become feasible in the next 5-10 years.** The analysis has shown that in the near term, low revenues and high land costs make most market-based development infeasible. Most developments in the current environment will require some subsidy to become feasible. However, in the short- to medium-term, most residential development types could become feasible with improved market conditions or reduced development costs. While office uses are likely to remain challenging, some build-to-suit projects driven by specific tenant needs or uses related to the University are still likely to occur.
- **Residential development is likely to drive much of the development in the corridor in the short- to mid-term.** Currently demand is not strong enough within the office or retail markets to support the type of large-scale mixed-use development projects envisioned in the station area plans. The residential market is currently the strongest market segment in the corridor and residential are projects the closest of all land uses to being feasible.
- Demand is currently not strong enough to support multi-tenant office development, as envisioned in the station area planning efforts. As the market in the corridor currently stands, any project that contains a significant amount of commercial space and structured parking will require a subsidy to be built. It is possible that some smaller-scale office uses could be built, particularly at the western end of the corridor closer to the University.
- **Townhouses are likely to be the first market-rate development type to become feasible within the corridor.** This is the case whether land costs remain fixed or steadily increase. Townhouses generate relatively high revenues per square foot and have relatively low construction costs, which makes it likely that they will be feasible to develop in the short term.
- **The high cost of providing structured parking for the large office and retail developments hurts the bottom line in the development scenarios.** For commercial developments to be built in an urban format that is pedestrian-oriented and maximizes its relationship to transit, demand must be strong enough to support the high cost associated with the construction of structured parking. Parking requirements that respond to transit with lower ratios for all uses will help reduce these costs.
- **Rising land costs are impacting the financial feasibility of projects in the short- and mid-term.** The corridor is in a state of transition from an auto-oriented corridor to one that includes uses supportive of a growing regional transit system. In part due to the expectations surrounding this transition, land values are currently out of line with the expected value of new development.
- **Public efforts can help facilitate the transition of the Central Corridor from an auto-oriented place to a series of transit-oriented neighborhoods.** For the last several decades the Central Corridor has been largely overlooked as a place for locating new housing, but the activity in the western end of the corridor reflects that this view is changing. Planning efforts that help to make the corridor a more pleasant place to live and work will be essential to help spread this renewed interest throughout the entirety of the corridor. It will be especially important to make the corridor hospitable to residential development because this is the land use that fares the best in terms of financial feasibility and will likely be the first transit-supportive use to become possible to develop in the near term. These efforts might

include creating parks and open spaces, streetscape and pedestrian improvements, administering a façade improvement program, and renovating existing buildings. Public subsidies targeted to these programs and amenities may do more to catalyze large-scale transformation than public subsidies directed to any one project.